

FIG. 1

USER'S WIRELESS
DEVICE 100

BROWSER 102	
AUTODETECT GPS CAPABILITY [GPS ENABLED]	
AUTODETECT MOBILE LOCATION [N/A]	
AUTODETECT LOCATION? Y/N " _N_"	
ENTER LOCATOR TOLERANCE: [1-50] [MI/KM]	
ENTER DEFAULT USER LOCATION: "HOME_/_WORK"	
ENTER LOCATION : [1] "STREET_ADDRESS" [2] "CITY_OR_PROVENCE" [3] "COUNTRY" [4] "ZIP_OR_MAIL_CODE" [5] "TELEPHONE /_AREA_CODE"	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1A

USER'S WIRELESS
DEVICE 100

BROWSER 102	
AUTODETECT GPS CAPABILITY [GPS ENABLED]	
AUTODETECT MOBILE LOCATION [N/A]	
AUTODETECT LOCATION? Y/N " _Y_"	
"GPS_AUTODETECT_EXECUTING..."	
GPS COORDINATE DISPLAYED	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1B

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES BROWSE UDDI REGISTRY FOR WEB SITE URLS BASED ON LOCATION	
ENTER LOCATION HANDLE: " _DC_TRIP _" AUTO-UPDATE ENABLE? Y/N: "Y"	
ENTER SEARCH HANDLE: " _RESTAURANT _"	
ENTER FIRST TERM: " _MIDDLE_EAST* _" IS THIS A BUSINESS? Y/N " _Y _" IS THIS A SERVICE? Y/N " _N _"	
ENTER SECOND TERM: " _KABOB _" IS THIS A BUSINESS? Y/N " _Y _" IS THIS A SERVICE? Y/N " _N _"	
SEND " _find_business" XML INQUIRY WITH SOAP PROTOCOL	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1C

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES RESULTS FROM BROWSING UDDI REGISTRY UNDER LOCATION HANDLE " _DC_TRIP _" AND SEARCH HANDLE " _RESTAURANT _"	
RETURNED businessList MESSAGE: (1) MIDDLE EASTERN DINING IN DC (2) HOUSE OF KABOB (3) KABOB PALACE (4) KABOB EMPORIUM	
CHECK LOCATION AUTO-UPDATE SELECT ITEM FROM RETURNED LIST OR CONTINUE BROWSING	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1D

USER'S WIRELESS
DEVICE 100

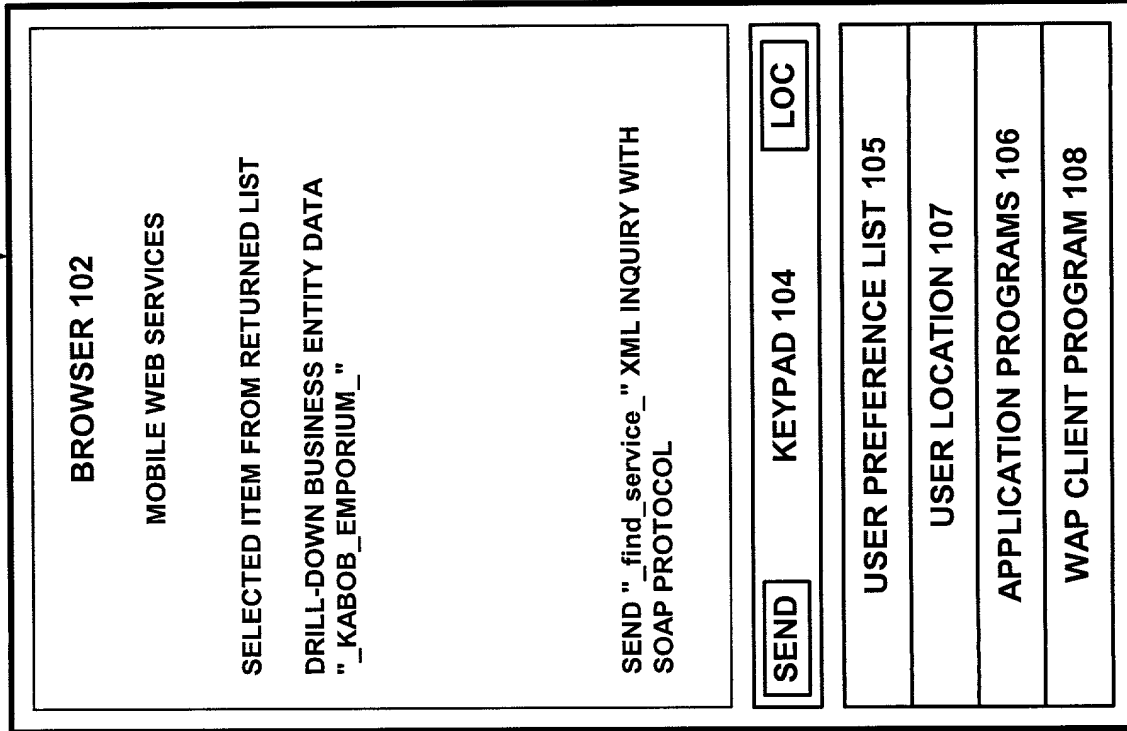


FIG. 1E

USER'S WIRELESS
DEVICE 100

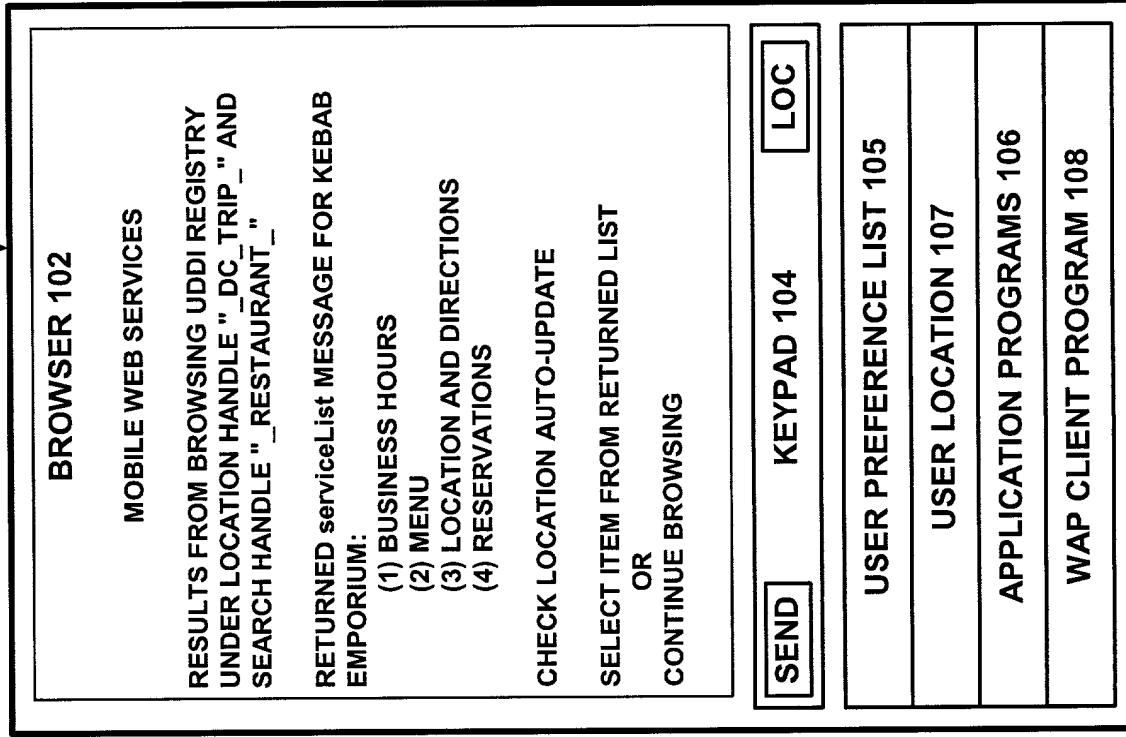


FIG. 1F

USER'S WIRELESS
DEVICE 100

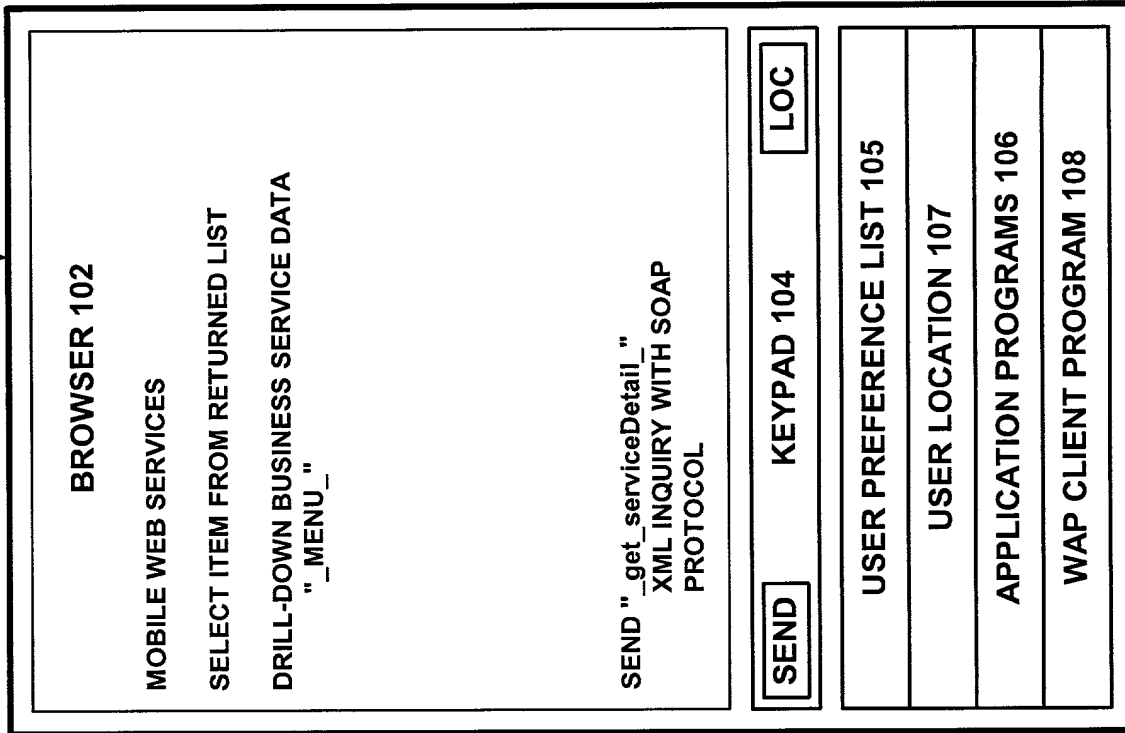


FIG. 1G

USER'S WIRELESS
DEVICE 100

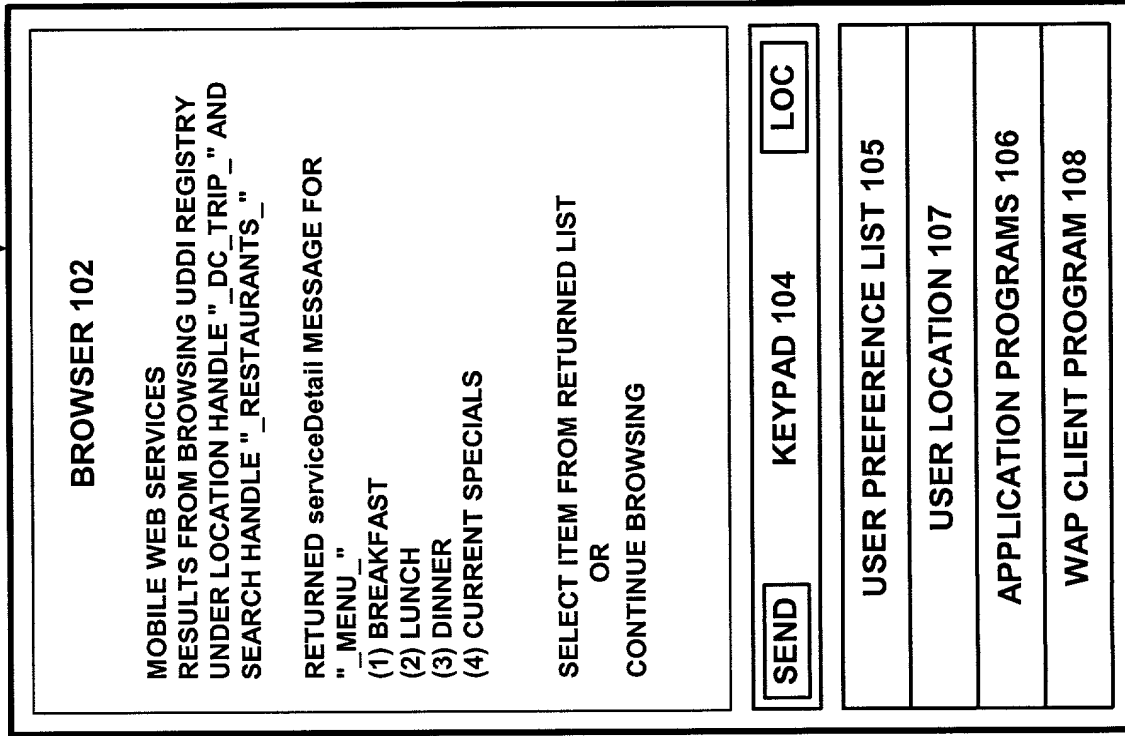


FIG. 1H

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES	
SELECT ITEM FROM RETURNED LIST	
DISPLAY AND STORE accessPoint URL FROM BINDING TEMPLATE DATA IN RETURNED serviceDetail MESSAGE FOR "_DINNER_"	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1I

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES	
RESULTS FROM BROWSING UDDI REGISTRY UNDER LOCATION HANDLE "_DC_TRIP_" SEARCH HANDLE "_RESTAURANTS_"	
RETURNED accessPoint URL FROM BINDING TEMPLATE DATA IN RETURNED serviceDetail MESSAGE FOR "_RESERVATIONS_"	
URL : "_WWW.KABOBEMPORIUM.COM/MENU/ DINNER_"	
SELECT ITEM FROM RETURNED LIST OR CONTINUE BROWSING	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1J

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES	
ENTER LOCATION OR SEARCH HANDLE TO USE PROFILE FROM A PRIOR SEARCH	
ENTER LOCATION HANDLE: "_DC_TRIP_" ENTER SEARCH HANDLE: "_RESTAURANTS_"	
SELECT TYPE OF SEARCH: (1) GET WEB PAGES FROM WEB SITE (2) REPLAY UDDI REGISTRY SEARCH STRATEGY	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

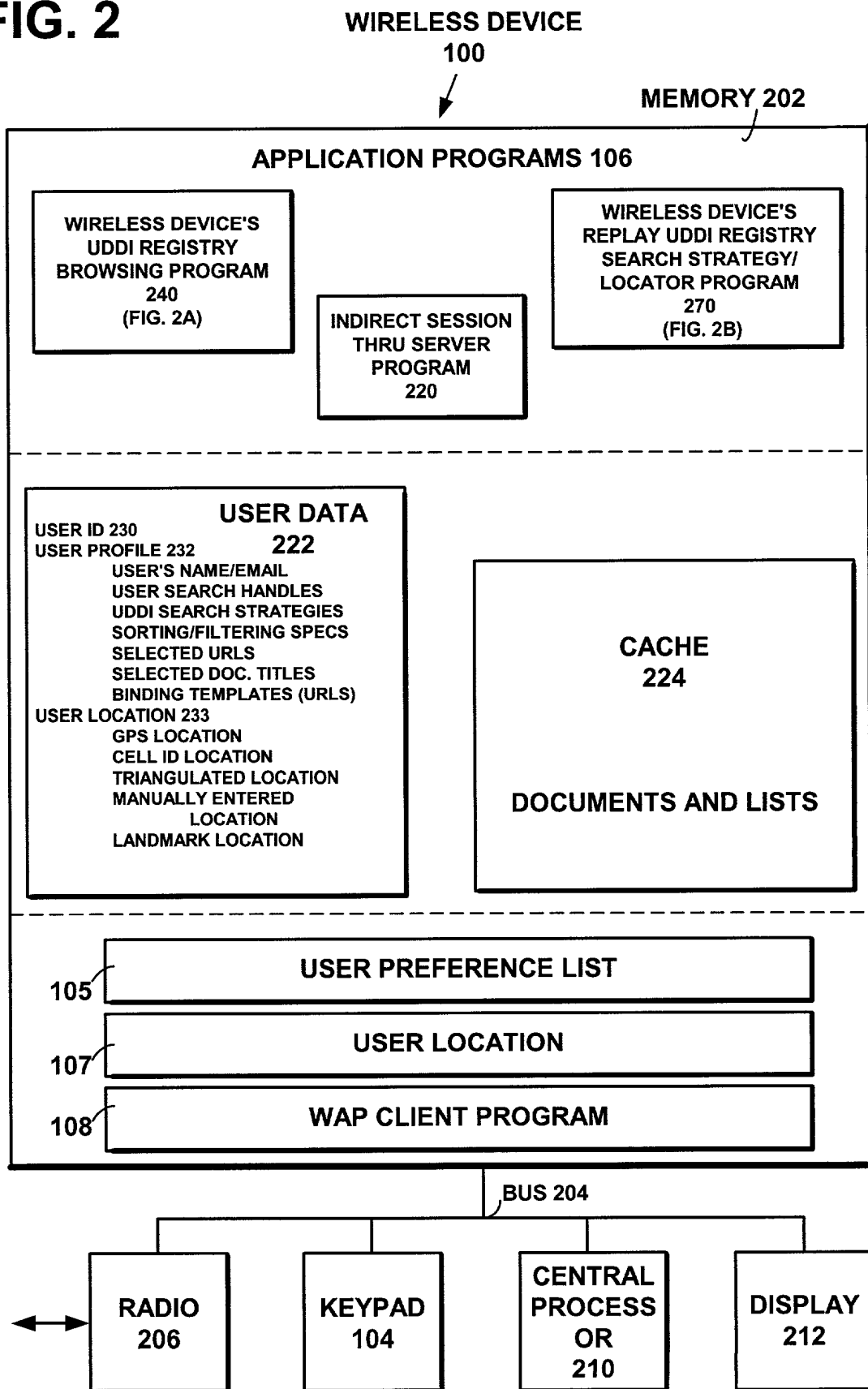
FIG. 1K

USER'S WIRELESS
DEVICE 100

BROWSER 102	
MOBILE WEB SERVICES	
RESULTS FROM REPLAYING UDDI SEARCH UNDER LOCATION HANDLE "_DC_TRIP_" AND SEARCH HANDLE "_RESTAURANTS_"	
RETURNED accessPoint URL FROM BINDING TEMPLATE DATA IN RETURNED serviceDetail MESSAGE FOR "_DINNER_"	
URLS: "_WWW.KEBABEMPORIUM.COM/RSVP/DINNER_" "_WWW.KEBABEMPORIUM.COM/SPECIALS/ DINNER_" "_WWW.KEBABEMPORIUM.COM/MENU/DINNER_"	
SELECT ITEM FROM RETURNED LIST OR CONTINUE BROWSING	
SEND	KEYPAD 104 LOC
USER PREFERENCE LIST 105	
USER LOCATION 107	
APPLICATION PROGRAMS 106	
WAP CLIENT PROGRAM 108	

FIG. 1L

FIG. 2



Parameter	Value	Unit
Initial concentration	100	mg/L
Initial pH	7.0	
Temperature	25	°C
Time	0, 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, 8192, 16384, 32768, 65536, 131072, 262144, 524288, 1048576, 2097152, 4194304, 8388608, 16777216, 33554432, 67108864, 134217728, 268435456, 536870912, 1073741824, 2147483648, 4294967296, 8589934592, 17179869184, 34359738368, 68719476736, 137438953472, 274877906944, 549755813888, 1099511627776, 2199023255552, 4398046511104, 8796093022208, 17592186044416, 35184372088832, 70368744177664, 140737488355328, 281474976710656, 562949953421312, 1125899906842624, 2251799813685248, 4503599627370496, 9007199254740992, 18014398509481984, 36028797018963968, 72057594037927936, 144115188075855872, 288230376151711744, 576460752303423488, 1152921504606846976, 2305843009213693952, 4611686018427387904, 9223372036854775808, 18446744073709551616, 36893488147419103232, 73786976294838206464, 147573952589676412928, 295147905179352825856, 590295810358705651712, 1180591620717411303424, 2361183241434822606848, 4722366482869645213696, 9444732965739290427392, 18889465931478580854784, 37778931862957161709568, 75557863725914323419136, 151115727451828646838272, 302231454903657293676544, 604462909807314587353088, 1208925819614629174706176, 2417851639229258349412352, 4835703278458516698824704, 9671406556917033397649408, 19342813113834066795298816, 38685626227668133590597632, 77371252455336267181195264, 154742504910672534362390528, 309485009821345068724781056, 618970019642690137449562112, 1237940039285380274899124224, 2475880078570760549798248448, 4951760157141521099596496896, 9903520314283042199192993792, 19807040628566084398385987584, 39614081257132168796771975168, 79228162514264337593543950336, 158456325028528675187087900672, 316912650057057350374175801344, 633825300114114700748351602688, 1267650600228229401496703205376, 2535301200456458802993406410752, 5070602400912917605986812821504, 10141204801825835211973625643008, 20282409603651670423947251286016, 40564819207303340847894502572032, 81129638414606681695789005144064, 162259276829213363391578010288128, 324518553658426726783156020576256, 649037107316853453566312041152512, 1298074214633706907132624082305024, 2596148429267413814265248164610048, 5192296858534827628530496329220096, 10384593717069655257060992658440192, 20769187434139310514121985316880384, 41538374868278621028243970633760768, 83076749736557242056487941267521536, 166153499473114484112975882535043072, 332306998946228968225951765070086144, 664613997892457936451903530140172288, 1329227995784915872903807060280344576, 2658455991569831745807614120560689152, 5316911983139663491615228241121378304, 10633823966279326983230456482242756608, 21267647932558653966460912964485513216, 42535295865117307932921825928971026432, 85070591730234615865843651857942052864, 170141183460469231731687303715884105728, 340282366920938463463374607431768211456, 680564733841876926926749214863536422912, 1361129467683753853853498429727072845824, 2722258935367507707706996859454145691648, 5444517870735015415413993718908291383296, 10889035741470030830827987437816582766592, 21778071482940061661655974875633165533184, 43556142965880123323311949751266331066368, 87112285931760246646623899502532662132736, 174224571863520493293247799005065324265472, 348449143727040986586495598010130648530944, 696898287454081973172991196020261297061888, 1393796574908163946345982392040522594123776, 2787593149816327892691964784081045188247552, 5575186299632655785383929568162090376495104, 11150372599265311570767859136324180752990208, 22300745198530623141535718272648361505980416, 44601490397061246283071436545296723011960832, 89202980794122492566142873090593446023921664, 178405961588244985132285746181186892047843328, 356811923176489970264571492362373784095686656, 713623846352979940529142984724747568191373312, 1427247692705959881058285969449495136382746624, 2854495385411919762116571938898990272765493248, 5708990770823839524233143877797980545530986496, 11417981541647679048466287755595961091061972992, 2283596308329	



FIG. 2B

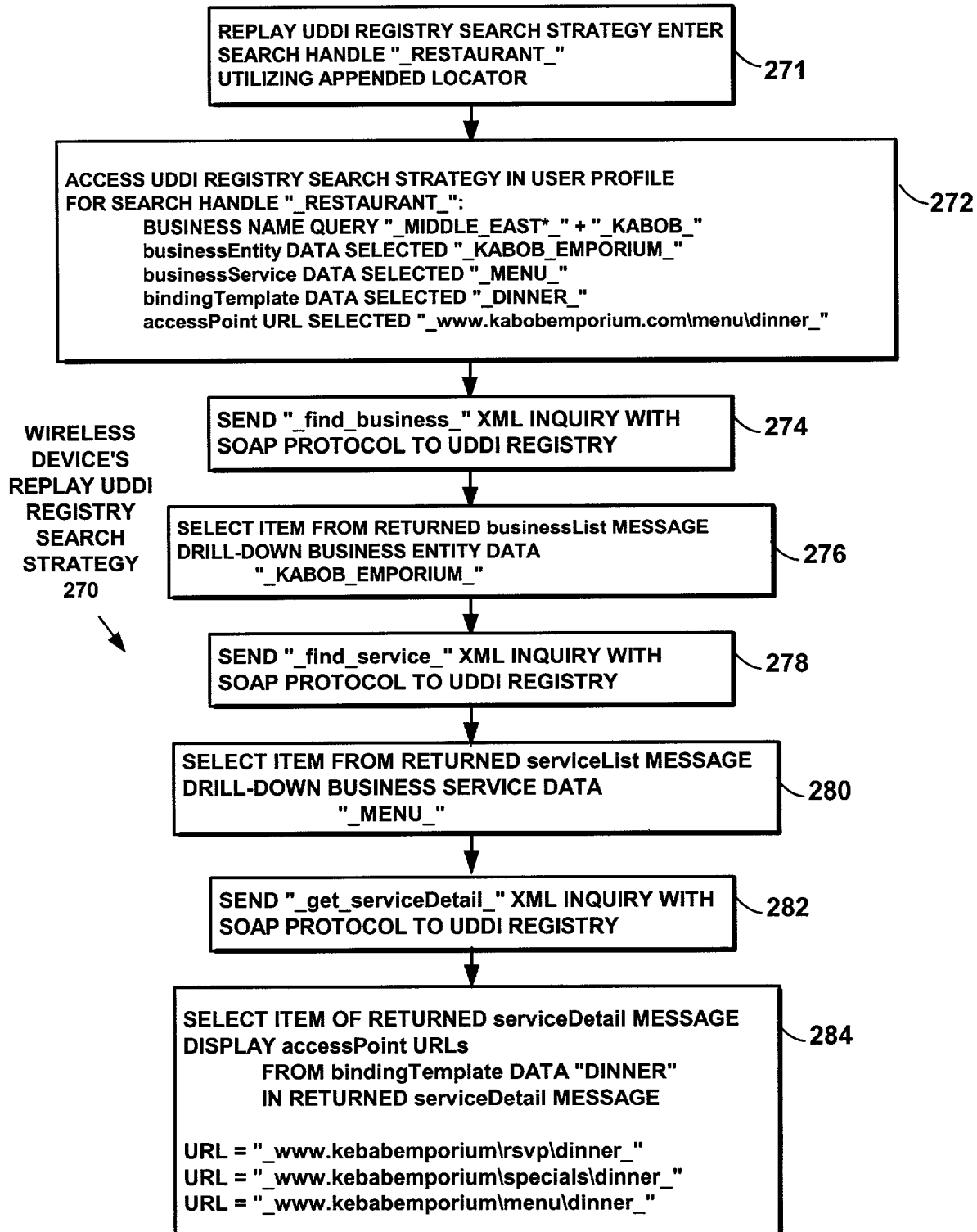


FIG. 3A

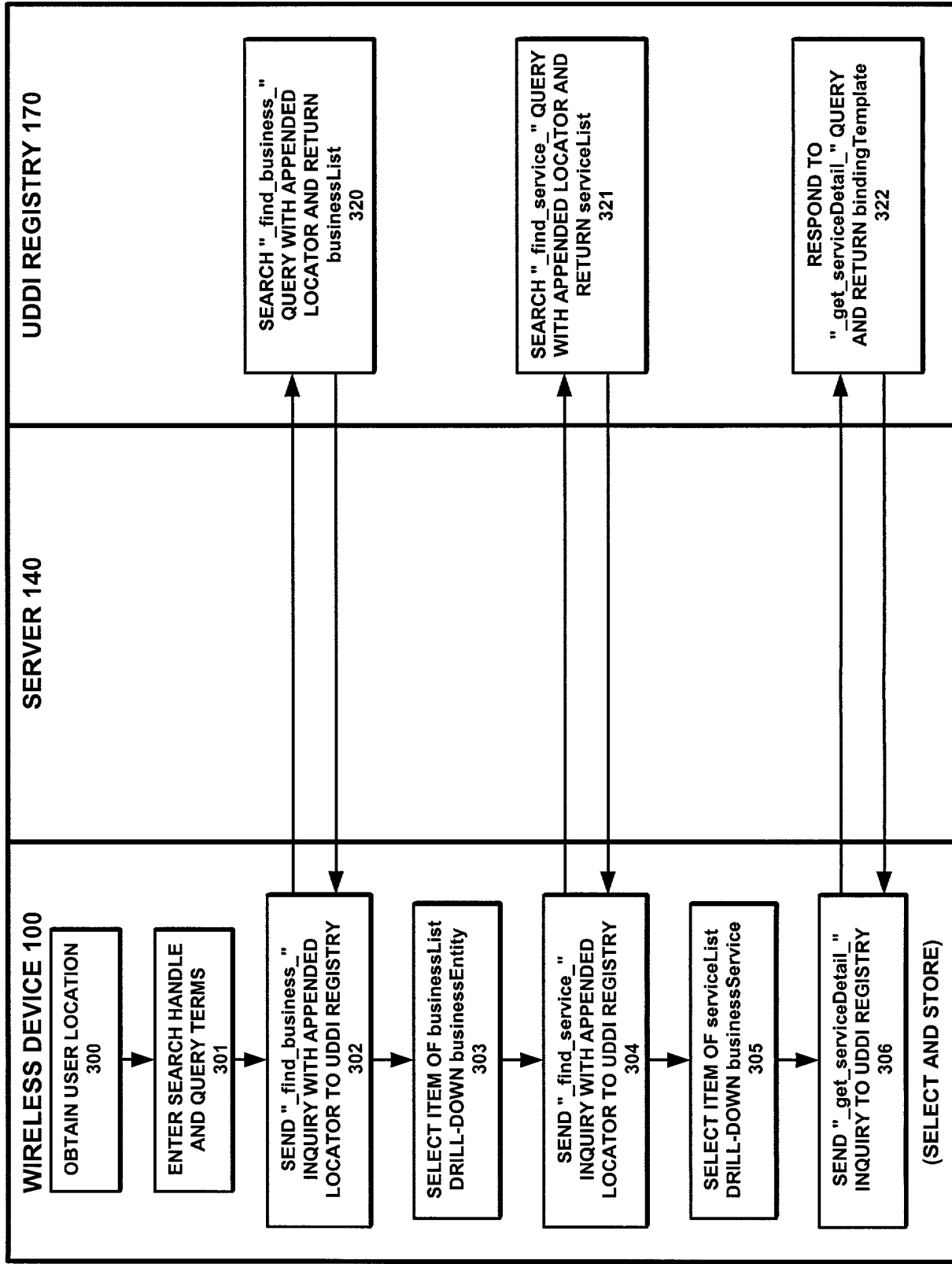


FIG. 3B

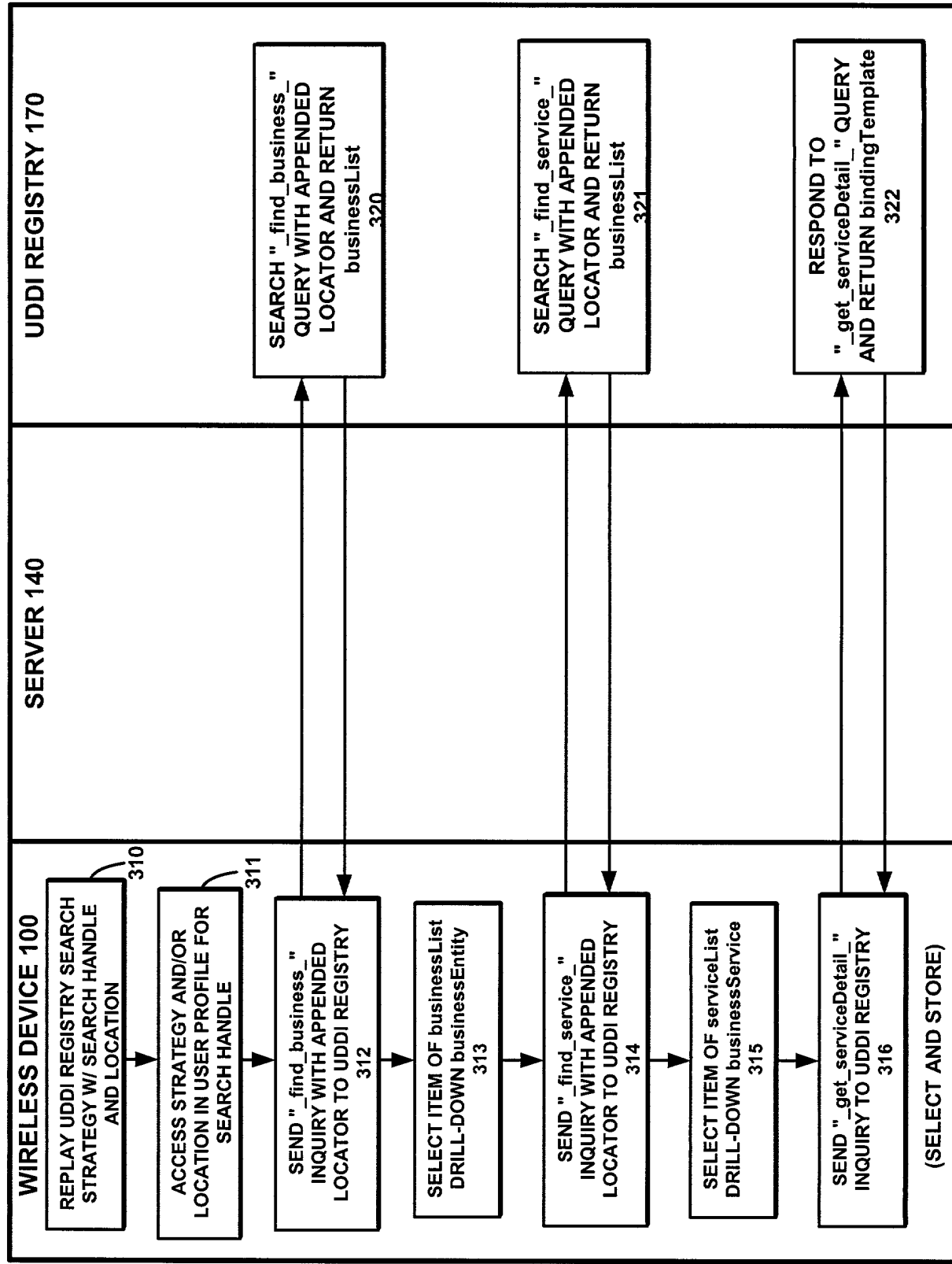


FIG. 4

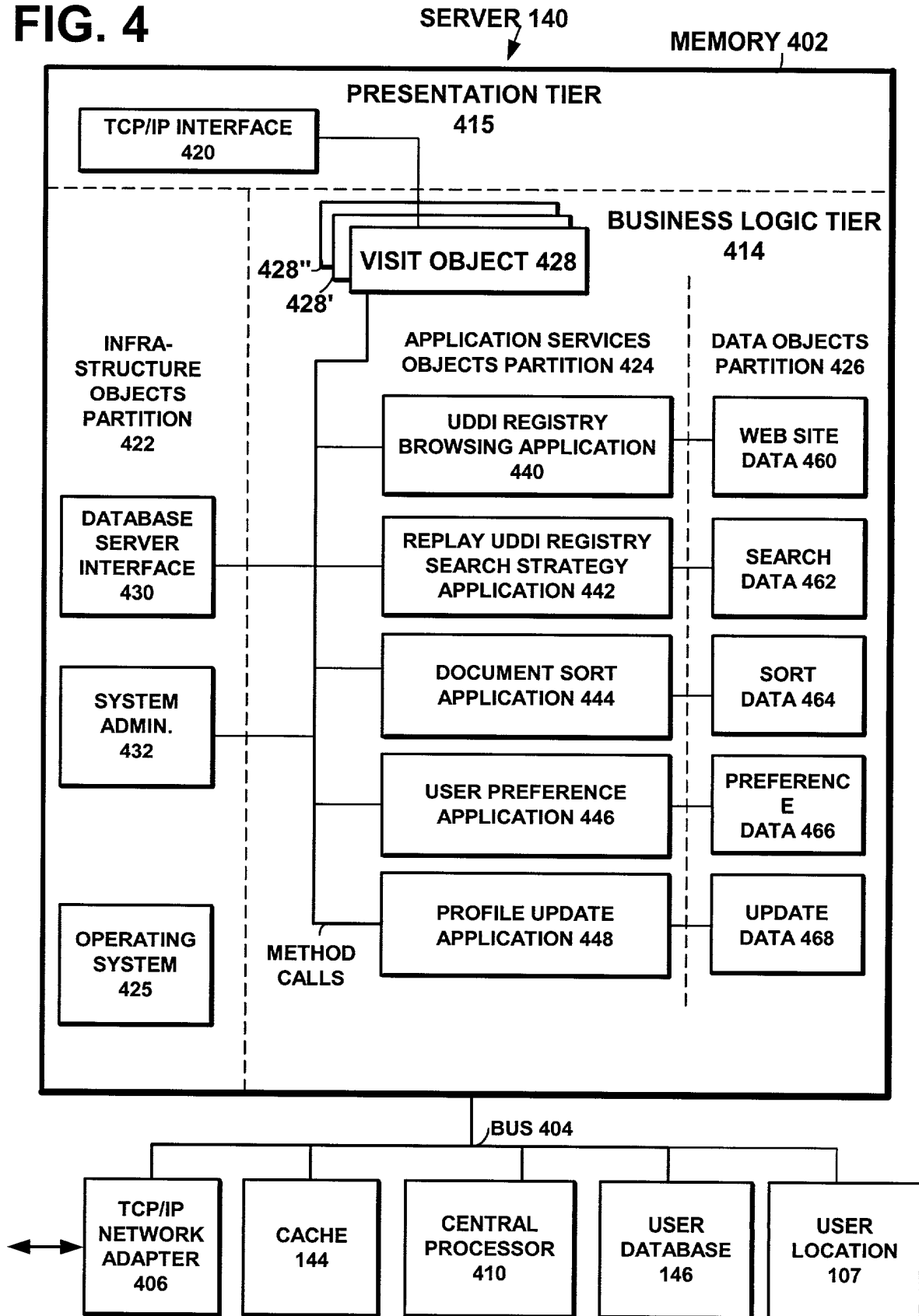


FIG. 4A

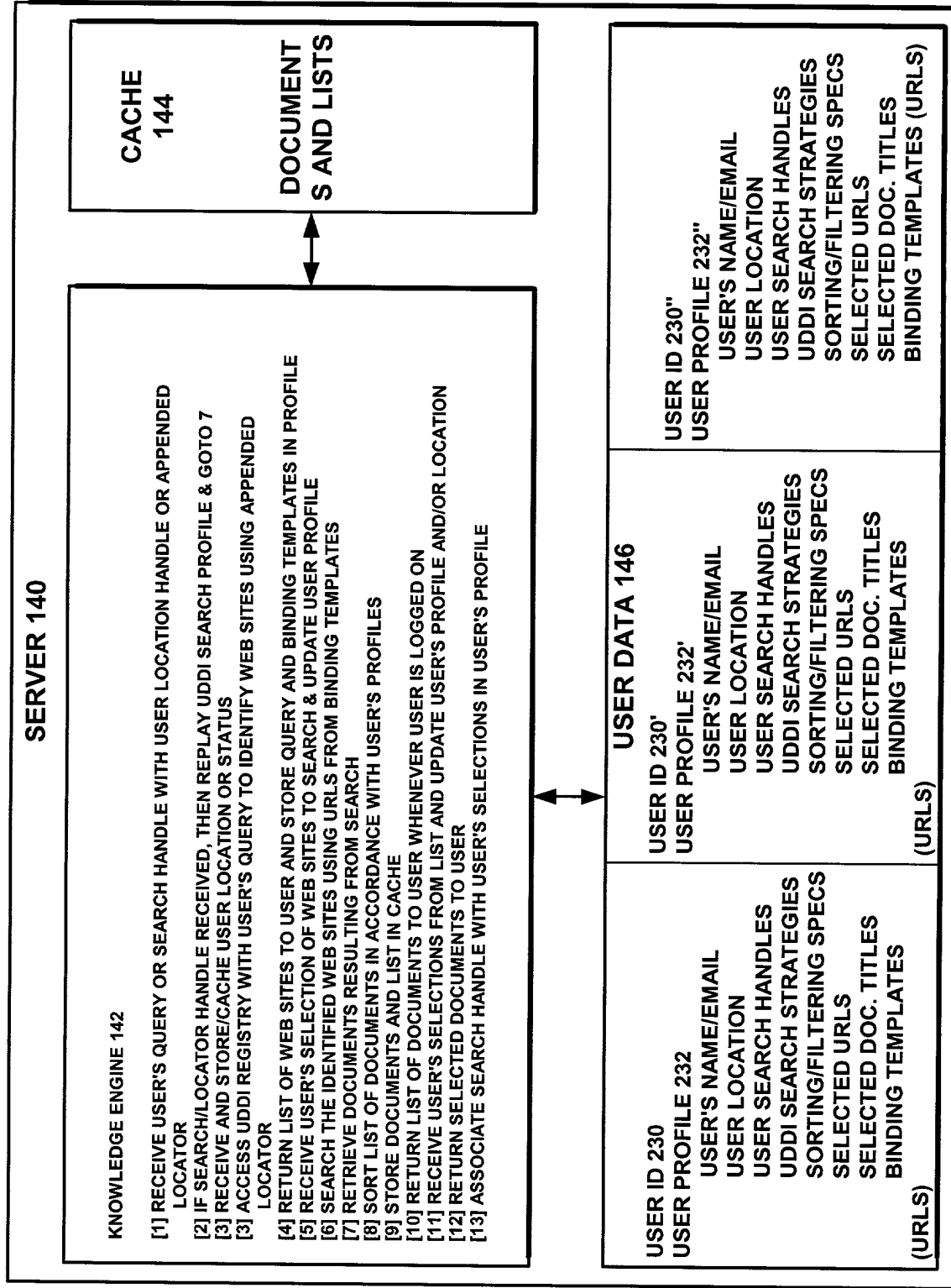
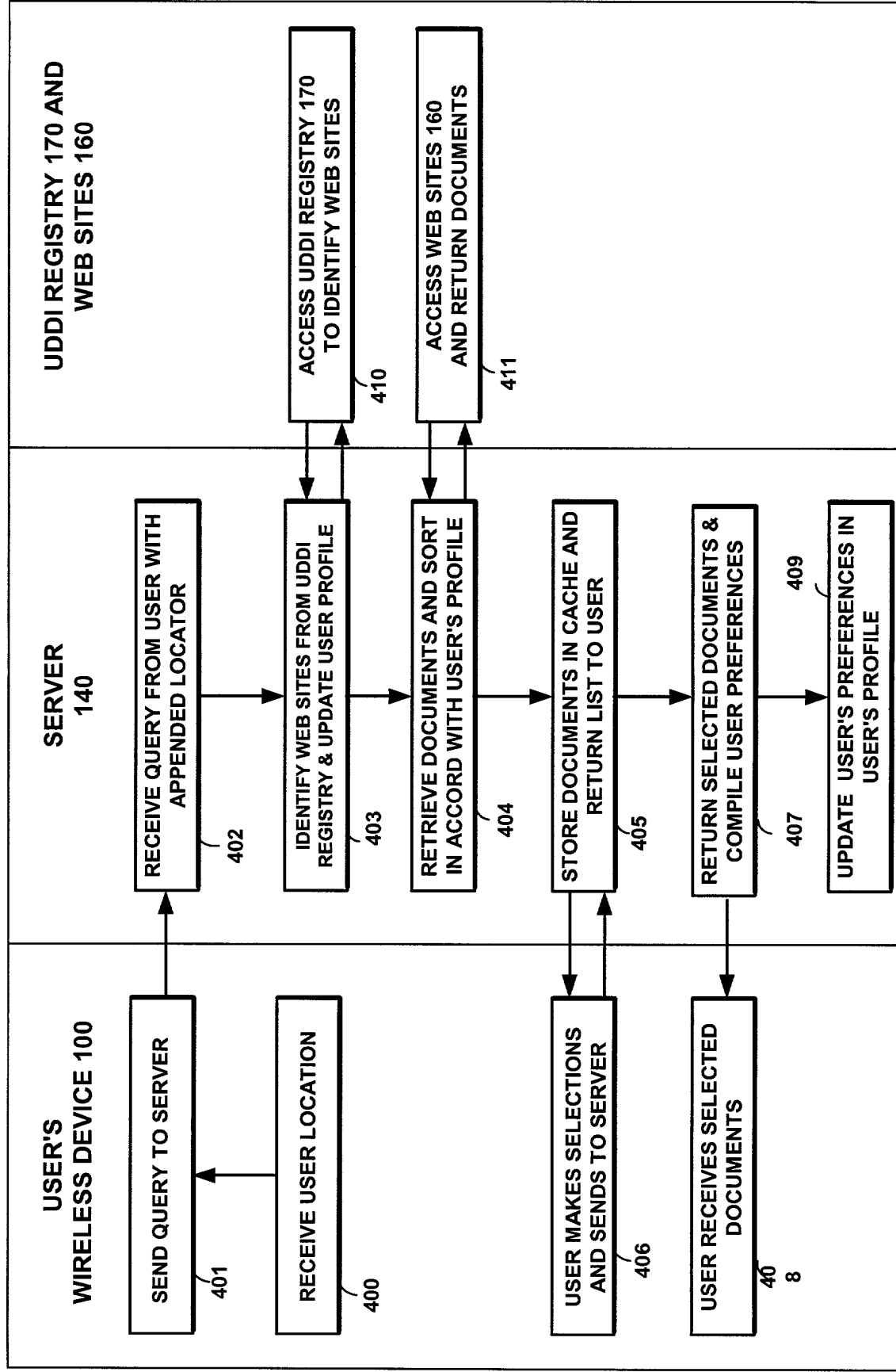


FIG. 4B



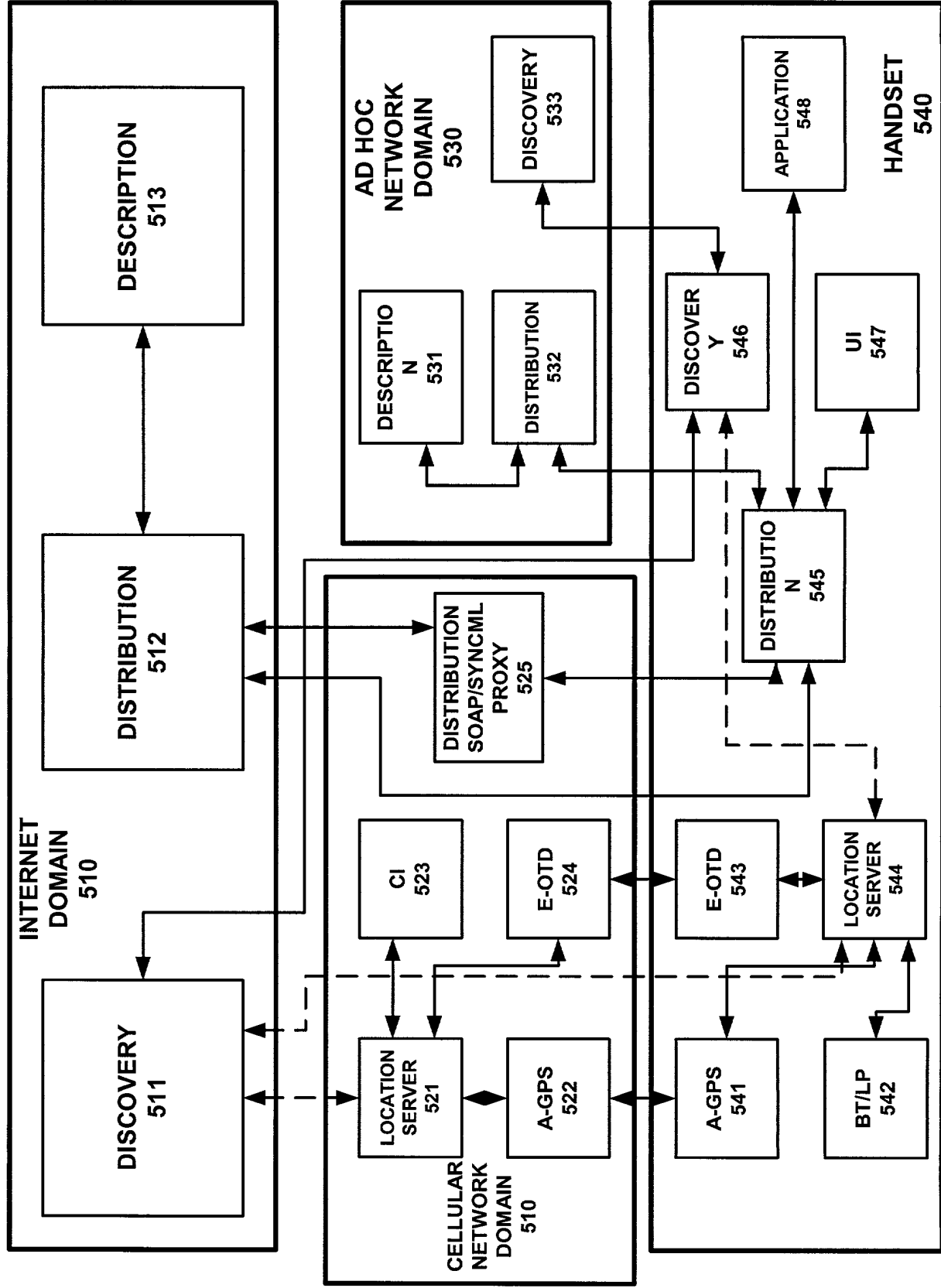


FIG. 5

FIG. 6

